Design Resource

Bamboo Window Mat Weaving - Cochin, Kerala

Traditional Art of Weaving

by
Prof. Bibhudutta Baral and Sowmya B. N.
NID Campus, Bengaluru

Source:
https://dsource.in/resource/bamboo-window-mat-weaving-cochin-kerala

1. Introduction
2. Tools and Raw Materials
3. Making Process
4. Products
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Introduction

Kochi is also known as Cochin. Ernakulam refers to the eastern, mainland portion of the city of Kochi in central Kerala, India. The city is the most urban part of the Kochi and has lent its name to the Ernakulam district. Ernakulam is called the commercial capital of the state of Kerala.

In Kerala, 28 species of bamboo are found to occur. Kerala has a large number of thin-walled bamboos called reed bamboos which are used mainly for weaving by the traditional artisan. Bamboos from the Kerala forests are being supplied mainly to the pulp and rayon units at concessional rates. A unique feature of the Kerala bamboo part is that 67.3% of the extracted bamboo comes from the forests.

In Kerala traditionally a large number of artisans are dependent on bamboo crafts for their livelihood. The traditional bamboo baskets and mats making skills are very popular. Kerala is one of the largest bamboo producing states in the Country.

Bamboo industry is one of the age-old traditional industries of Kerala state. Bamboo is one of the natural fibre found in Kerala and is found in richness in the forest. Wayanad is one of the major districts in Kerala known for its thick bamboo forest. As a natural, renewable resource, bamboo is regaining its popularity in the modern world through various applications in day to day life.

Bamboo is a versatile and important part of the economy and culture in many countries. Bamboo which is considered as the poor man's timber is one of the most important forestry species with wide distribution thought India.

Bamboo is one of the fastest growing plants on earth. It is a type of tropical that grows plentifully in many parts of the world. There is no need to set up irrigation systems for bamboo because it will thrive with the typical rainfall and sunlight provided by the natural climate. Bamboo has been recorded to grow up to a meter in one day. Bamboo is a fast growing crop that requires little maintenance. Bamboo is also a crop that benefits the environment.

Bamboo is environmentally friendly and they grow fast. Bamboo blinds are flexible and easy to attach. These blinds are easy to maintain. They are easy to clean as well. They are efficient in keeping the lights out. Bamboo blinds are dense and durable. Bamboo blinds are very easy to install.

Mr. C.T. Kuruvilla, owner of the Bamboo Window Blinds manufacturing company Kuruvilla and Sons in Kochi. They bring the ready bamboo sticks from the northeast. They also manufacture PVC blinds. 12 people are working in that company. The first product was sold in 1986.

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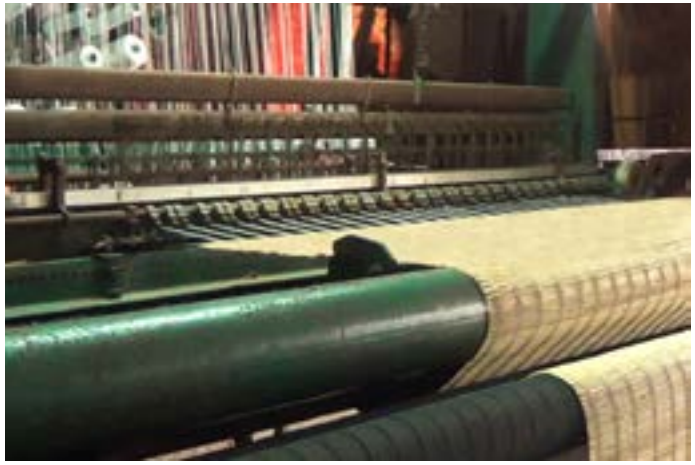
Edges of the Bamboo Window Mat are cut by the machine simultaneously when weaving is done.

Bamboo Mat weaving Machine helps in producing Bamboo into curtains/Mats.

Bamboo strips which consist of 4 to 5 feet in length are driven into the machine.



The Bamboo Mat Weaving machine has the potential of producing products of 240–270 sqft/hour.

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Artisan marking the Bamboo mat once weaved with a marker.

Managing Director of Bamboo Wooden Mat Weaving Company.

Bamboo Strips are heated and appeared to be brown.

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Exterior and interior mat weaving is done using two different Bamboo Weaving machines.

Artisan pulls out the Bamboo strips when it is struck or not weaved properly while weaving the mat.

Raw Bamboo Strips.

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Tools and Raw Materials

Tools and raw materials used for Bamboo Window Mat Weaving are as follows:

- **Bamboo:** The main raw material used for making window mat. Round and flat shaped bamboo strips are used.
- **Thread:** Nylon thread is used for bamboo blinds weaving.
- **Polypropylene Strap:** It is used to make edges for bamboo window mat finishing.
- **Power Loom:** It is used to weave bamboo sticks.
- **Sewing Machine:** It is used to stitch the edges of the bamboo window blinds.
- **Cross Cutting Machine:** It is used to cut the bamboo blinds according to the required size.
- **Pulley and Lock:** These two materials are used for fixing the window blind.

Bamboo Strips – Used as a raw material in Bamboo mat.

Long and short Bamboo strips are used to get products in different sizes.

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Steam Heating Machine – Used to heat the Bamboo strips.

Nylon thread reels are used in the weaving process.

Cutting machines and measuring tape are used to cut and measure the mat.

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Making Process

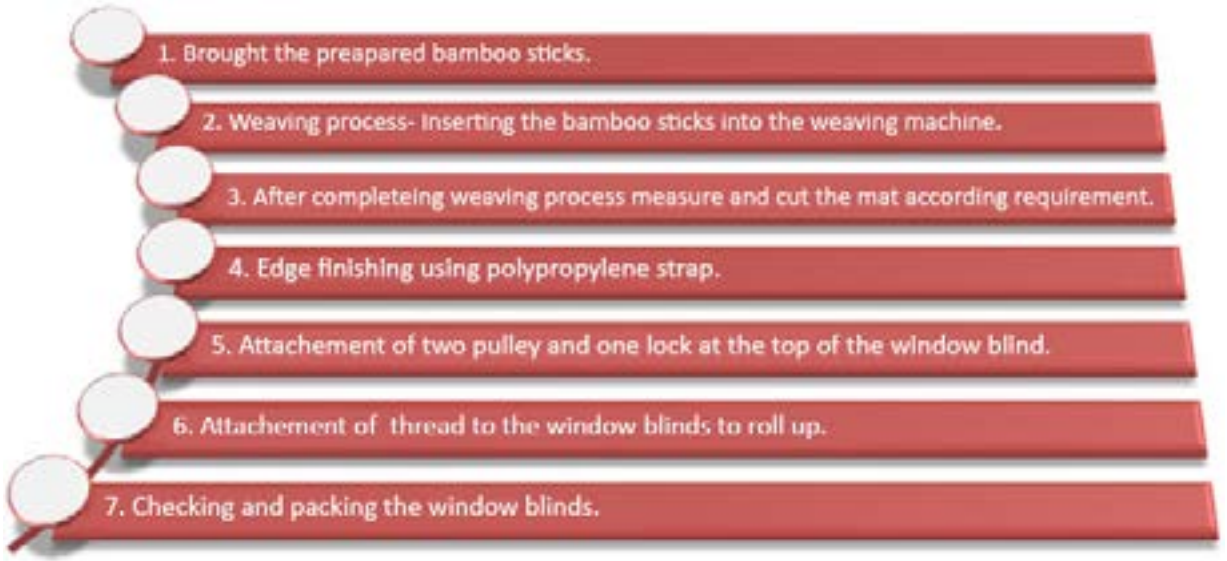
Bamboo window mats are prepared by using Bamboo sticks. Bamboos have to be cross-cut to the required size using a woodworking saw. After cutting, the bamboos are dried under the sun. After drying, sticks have to be bundled.

This bundle of bamboo sticks are brought and then arranged appropriately to weave. Artisan selects the round and flat shaped stick. Start the weaving process. These bamboo sticks are inserted into the weaving machine one by one. The 100% nylon thread is used for bamboo mat weaving.

Once the weaving process is completed the mats are cut according to the product requirements. The prepared mats are measured and then cut using a saw. The edge of the mats is cut equally. Then the edge of the bamboo mats is finished by using a polypropylene strap. The polypropylene straps are attached to the edge by stitching using the sewing machine.

The next process is to fix the two pulleys and one lock at the top of the window blind. Then join the thread to the window blind to open and roll up. Once the process is completed the window blinds are checked and then packed for marketing.

Flow Chart:



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Bamboo strips are used for weaving in the bamboo wooden mat.

Bamboo strips are heated in the Steam heating machine at certain temperature.

Bamboo strips are heated to make them firmer and are especially used to make exterior window mats.

Bamboo Mat Weaving Machine.

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Artisan organizing the Bamboo strips to start weaving process.

As the wheels are spinning in side ways at certain speed, when Raw Bamboo strips are inserted into the cavity of the machine, it drives the Bamboo strips into the weaving area.

Steel stand kept to keep the Bamboo strips where Artisan can push the bamboo strips one by one into the cavity for weaving.

Bamboo strips are pushed according to the wheel spin, to carry the Bamboo strips into the weaving area.

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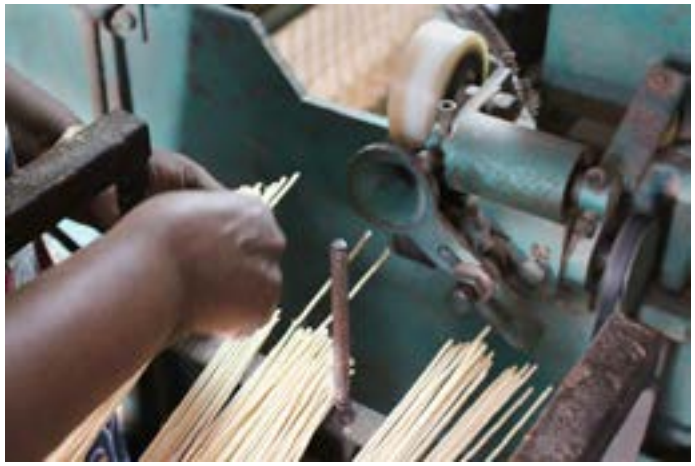
Nylon strings are arranged in sequential order with parallel gaps for weaving.

Artisan pushing Bamboo strips into Mat weaving machine and weaving process starts.

Machine starts its Weaving by making symmetrical knots with equal space tying the Bamboo strips with each other.



Artisan taking a bunch of Bamboo strips in hand where he/she can insert the bamboo strips faster into the cavity of the machine.

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Artisan needs to send the Bamboo strips faster inside the cavity one after the other because the machine is capable of producing 4 to 4.5 square feet/min.

Big Nylon thread reels are attached behind the weaving area of the machine.

The machine pushing out weaved bamboo mats.

Bamboo mats are dried on a flex sheet.

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After a certain length a mark is done using paint by the artisan.

To make each product in equal length mat is marked and cut using a knife.

For equal width artisan measures and marks each product.

Using the cutter machine artisan cuts the respected area where she marked.

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Artisan uses Measuring Tape and verifies the size once again after cutting.

Border beading is attached to the bamboo mat and stitched using a stitching machine.

Artisan adding blinds into the stitched window mat.

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Artisan cross-check the working of the Bamboo window mat after adding blinds to it.

Final packed product.

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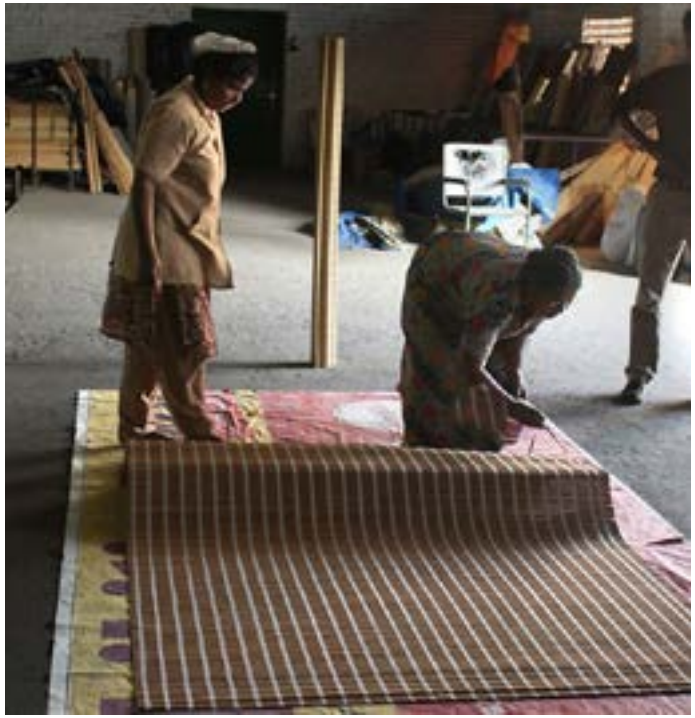
Products

Bamboo has been used to make almost everything from clothing, textile, flooring, stationery etc. Because of these reasons bamboo is called a versatile product. Bamboo is a sustainable product and it can adapt to the temperature. The demand for bamboo products is growing popular day by day.

- Ice cream stick
- Bamboo toys
- Utensils
- Bamboo baskets
- Bamboo pen

The bamboo window blinds are usually brown in color. The different color bamboo window blinds are made by coloring the bamboo stick. The price of the bamboo window mat is INR.2450.

Bamboo Window Mat.



Artisans with the products.

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Video

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This documentation was done by Prof. Bibhudutta Baral and Sowmya B. N. at NID, Bengaluru.

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